15

WHAT IS CLAIMED IS:

1. A compound of structural formula I:

$$R^3$$
 N
 A
 R^4
 R^5
 R^1
 R^2

or a pharmaceutically acceptable salt thereof, wherein;

V, W, X and Z are independently selected from CH and N;

R¹ is H, C₁₋₃ alkyl, C₁₋₃ alkoxy, F, or Cl;

R² is S(O)n R⁶, COR6 or CHO, wherein

n is 0, 1 or 2; and

 R^6 is $N(R^3)_2$ or C_{1-3} alkyl;

R³ is independently H or C₁₋₃ alkyl;

Ar is aryl or heteroaryl;

 R^4 and R^5 are independently selected from:

- (1) hydrogen,
 - (2) aryl, either unsubstituted or substituted with
 - (a) halo
 - (b) C₁₋₃ alkoxy,
 - (c)- $N(C_{1-3}$ alkyl)2,
 - (d) C2-4 alkanoyl, or
 - (e) aryl;
 - (3) nitro,
 - (4) C₁₋₅ alkyl,
 - (5) C₁₋₅ alkoxy,
- 25. (6) hydroxy-C₁₋₃ alkyl,

- (7) carboxy,
- (8) halo,
- (9) C₁₋₅ alkylthio,
- (10) C₁₋₅ alkoxycarbonyl,
- (11) pyridylcarbonyl,
- (12) benzoyl,
- (13) phenyl-C₁₋₃ alkoxy,
- (14) pyridyl, either unsubstituted or substituted with C_{1-3} alkyl or C_{1-3} alkoxy,
- (15) C3-6 cycloalkyl,
- (16) oxazolyl,
- (17) thiazolyl,
- (18) triazolyl,
- (19) phenoxy or
- 15 (20) C₂₋₆ alkanoyl.
 - 2. The compound of Claim 1 wherein Ar is phenyl, of structural formula I(a)

$$\begin{array}{c|c}
R^3 \\
\downarrow \\
R^5 \\
R^5 \\
R^2
\end{array}$$

10

I(a)

or a pharmaceutically acceptable salt thereof.

3. The compound of Claim 2 wherein X and Z are both nitrogen and V and W are both -CH=.

- 4. The compound of Claim 3 wherein R² is -SO₂(C₁₋₃ alkyl) or SO₂NH₂.
- 5. The compound of Claim 4 wherein R⁴ and R⁵ are independently selected from: phenyl, pyridyl, benzoyl, halophenyl, phenoxy, C₁₋₅ alkylpyridyl, benzhydryl, phenyl-C₁₋₃ alkoxy, NO₂, C₂₋₄ alkanoyl, halo, C₁₋₅ alkoxy, C₁₋₃ alkoxycarbonyl, C₁₋₅ alkylthio, triazolyl, carboxy, hydrogen, C₁₋₅ alkyl, pyridylcarbonyl, and C₁₋₃ alkoxyphenyl.
- 6. The compound of Claim 5 or a pharmaceutically acceptable salt thereof selected from those depicted in the following Table:

R ²	R ⁴ R5
-SO₂CH₃	
-SO ₂ CH ₃	
-SO ₂ CH ₃	
-SO₂CH₃	CH3
-SO ₂ NH ₂	
-SO ₂ NH ₂	CI

R ²	\mathbb{R}^4 \mathbb{R}^5
-SO ₂ NH ₂	CH ₃
-SO ₂ NH ₂	
-SO ₂ C ₂ H ₅	
-SO ₂ CH(CH ₃) ₂	
-SO ₂ CH(CH ₃) ₂	

7. The compound of Claim 1 wherein Ar is a 5- or 6-membered heteroaryl having, besides carbon atoms, 1 to 3 hetero atoms selected from N, O or S as atoms constituting the ring, or benzo- or pyrido- fused versions thereof of structural formula I(b);

$$\begin{array}{c|c}
R^3 \\
O & N \\
A & R^5
\end{array}$$

$$\begin{array}{c|c}
R^1 & V \\
V & T \\
R^2
\end{array}$$

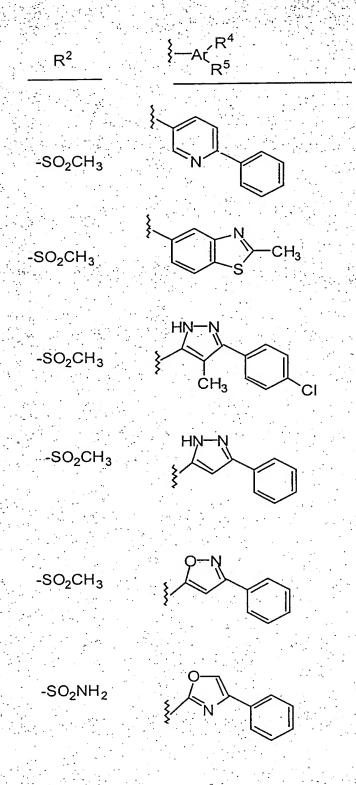
٥,

: I(b

or a pharmaceutically acceptable salt thereof.

- 8. The compound of Claim 7 wherein X and Z are both nitrogen and V and W are both -CH=.
 - 9. The compound of Claim 8 wherein R² is -SO₂(C₁₋₃ alkyl) or -SO₂N(C₁₋₃ alkyl)₂.
- The compound of Claim 9 wherein the heteroaryl group, Ar, is selected from: thiazolyl, thiadiazolyl, pyrazolyl, pyridyl, benzothiazolyl, oxazolyl, pyridothiazolyl, benzoxazolyl, quinolyl, pyrazinyl, thienyl, isoxazolyl, pyrimidinyl, benzimidazolyl, oxadiazolyl and imidazolyl.
- 20 11. The compound of Claim 10, or a pharmaceutically acceptable salt thereof, selected from those depicted in the following Table:

R ²	$\begin{cases} -A \\ R^5 \end{cases}$
-SO₂CH₃	
-SO ₂ CH ₃	
-SO₂CH₃	HN-N
-SO₂CH₃	

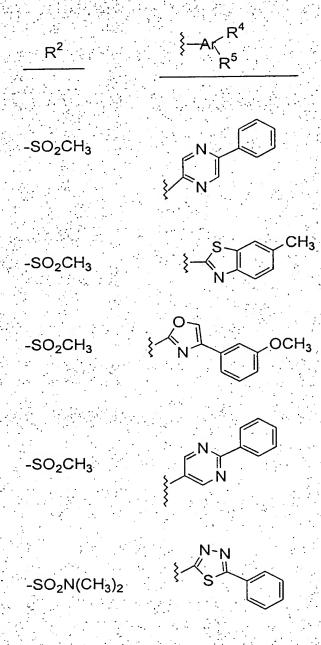


R^2	$\begin{cases} -A < R^4 \\ R^5 \end{cases}$
-SO ₂ CH ₃	CI.
-SO₂CH₃	HN-N
	HN-N
-SO ₂ CH ₃	OCH ₃
	HN-N
-SO ₂ CH ₃	OCH ₃
-SO ₂ CH ₃	HN-N OCH3
	9-N
-SO ₂ CH ₃	

$$R^2$$
 $A \subset R^5$
 SO_2CH_3
 $HN-N$
 SO_2CH_3
 $HN-N$
 CI
 SO_2CH_3
 $HN-N$
 CI
 SO_2CH_3
 $HN-N$
 SO_2CH_3
 $HN-N$
 SO_2CH_3
 SO

R^2	$_{\substack{\longleftarrow \\ \mathbb{R}^5}}^{\mathbb{R}^4}$
-SO ₂ CH ₃	N-N s CI
	N-N S OCH ₃
-SO ₂ CH ₃	OCH ₃
-SO ₂ CH ₃	
-SO ₂ CH ₃	S $C(CH_3)_3$
-SO ₂ CH ₃	S F F

R ²	$ \begin{cases} -A_r \\ R^5 \end{cases} $
-SO₂CH₃	Q-N OCH
-SO ₂ CH ₃	
-SO ₂ CH ₃	O-N CI
-SO ₂ CH ₃	2 CI
-SO ₂ CH ₃	S OCH ₃
-SO ₂ CH ₃	S CI



R ²	R4 \-Ar_R5	
-SO ₂ NH ₂		
-SO ₂ CH ₃		
-SO ₂ C ₂ H ₅		
-SO ₂ C ₂ H ₅		

12. The compound of Claim 1 wherein one of X and Z is N and the other is -CH= of structural formula I(c):

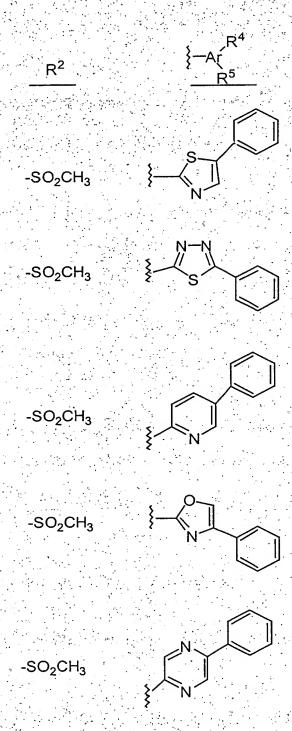
$$\begin{array}{c|c}
R^3 \\
0 \\
X
\end{array}$$

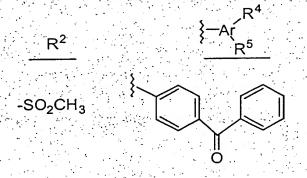
$$\begin{array}{c|c}
R^5 \\
R^5 \\
\end{array}$$

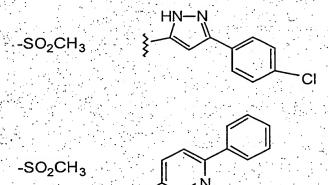
I(c)

or a pharmaceutically acceptable salt thereof.

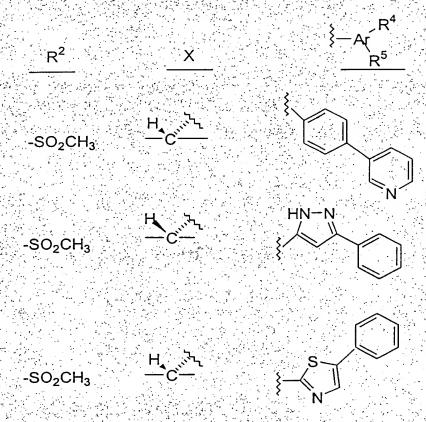
- 5 13. The compound of Claim 12 wherein X is N, Z is -CH= and V and W are both -CH=.
- 14. The compound of Claim 13, or a pharmaceutically acceptable salt thereof selected from those depicted in the following Table







- 15. The compound of Claim 12 wherein X is -CH=, Z is N and V and W are both -CH=.
- 16. The compound of Claim 15 or a pharmaceutically acceptable salt thereof, selected from those depicted in the following Table;



R ²	<u> </u>	}—A(R4 R5
-SO₂CH₃	H. 37.	
-SO ₂ CH ₃	Η, λι —c—	
-SO₂CH₃	H. C.	N=N-(-)F
-SO₂CH₃	H	N N F
-SO ₂ CH ₃	H_C\\\^\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	CH ₃
-SO₂CH₃	H. C.	CH ₃

17. The compound of Claim 1 wherein R² is -COR6 of structural formula I(d):

- 5 or a pharmaceutically acceptable salt thereof.
 - 18. The compound of Claim 17 or a pharmaceutically acceptable salt thereof selected from those depicted in the following Table:

19. The compound of Claim 1 of structural formula I(e), wherein one of V or W is nitrogen and the other is -CH=.

- 20. The compound of Claim 19 wherein R¹ and R³ ar both hydrogen.
- 21. The compound of Claim 20 wherein R² is -SO₂CH₃ or -SO₂NH₂.
- 22. The compound of Claim 21 selected from the compounds
 depicted in the following TABLE

- 23. A method of treating Y5 receptor mediated diseases which comprises administering to a patient in need of such treatment a non-toxic therapeutically effective amount of a compound of Claim 1 that selectively antagonizes the Y5 receptor in preference to the other NPY receptors.
 - 24. The method of Claim 23 wherein the Y5 mediated disease is obesity.

25. A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a selective Y5 antagonist.